

114TH CONGRESS
1ST SESSION

S. 869

To improve energy performance in Federal buildings, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 26, 2015

Mr. HOEVEN (for himself, Mr. MANCHIN, and Mr. DONNELLY) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To improve energy performance in Federal buildings, and
for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “All-of-the-Above Fed-
5 eral Building Energy Conservation Act of 2015”.

6 **SEC. 2. ENERGY PERFORMANCE REQUIREMENT FOR FED-**
7 **ERAL BUILDINGS.**

8 Section 543 of the National Energy Conservation
9 Policy Act (42 U.S.C. 8253) is amended—

1 (1) by striking subsection (a) and inserting the
2 following:

3 “(a) ENERGY PERFORMANCE REQUIREMENT FOR
4 FEDERAL BUILDINGS.—

5 “(1) REQUIREMENT.—Subject to paragraph
6 (2), each agency shall apply energy conservation
7 measures to, and shall improve the design for the
8 construction of, the Federal buildings of the agency
9 (including each industrial or laboratory facility) so
10 that the energy consumption per gross square foot
11 of the Federal buildings of the agency in fiscal years
12 2006 through 2017 is reduced, as compared with the
13 energy consumption per gross square foot of the
14 Federal buildings of the agency in fiscal year 2003,
15 by the percentage specified in the following table:

“Fiscal Year	Percentage Reduction
2006	2
2007	4
2008	9
2009	12
2010	15
2011	18
2012	21
2013	24
2014	27
2015	30
2016	33
2017	36.

16 “(2) EXCLUSION FOR BUILDINGS WITH ENERGY
17 INTENSIVE ACTIVITIES.—

18 “(A) IN GENERAL.—An agency may ex-
19 clude from the requirements of paragraph (1)

1 any building (including the associated energy
2 consumption and gross square footage) in which
3 energy intensive activities are carried out.

4 “(B) REPORTS.—Each agency shall iden-
5 tify and list in each report made under section
6 548(a) the buildings designated by the agency
7 for exclusion under subparagraph (A).

8 “(3) REVIEW.—Not later than December 31,
9 2017, the Secretary shall—

10 “(A) review the results of the implementa-
11 tion of the energy performance requirements es-
12 tablished under paragraph (1); and

13 “(B) based on the review conducted under
14 subparagraph (A), submit to Congress a report
15 that addresses the feasibility of requiring each
16 agency to apply energy conservation measures
17 to, and improve the design for the construction
18 of, the Federal buildings of the agency (includ-
19 ing each industrial or laboratory facility) so
20 that the energy consumption per gross square
21 foot of the Federal buildings of the agency in
22 each of fiscal years 2018 through 2030 is re-
23 duced, as compared with the energy consump-
24 tion per gross square foot of the Federal build-

ings of the agency in the prior fiscal year, by
3 percent.”; and

(2) in subsection (f)—

(A) in paragraph (1)—

(i) by redesignating subparagraphs
(E), (F), and (G) as subparagraphs (F),
(G), and (H), respectively; and

(ii) by inserting after subparagraph
(D) the following:

“(E) ONGOING COMMISSIONING.—The
term ‘ongoing commissioning’ means an ongoing
process of commissioning using monitored
data, the primary goal of which is to ensure
continuous optimum performance of a facility,
in accordance with design or operating needs,
over the useful life of the facility, while meeting
facility occupancy requirements.”;

(B) in paragraph (2), by adding at the end
the following:

“(C) ENERGY MANAGEMENT SYSTEM.—An
energy manager designated under subparagraph
(A) shall consider use of a system to manage
energy use at the facility and certification of
the facility in accordance with the International
Organization for Standardization standard

1 numbered 50001 and entitled ‘Energy Manage-
2 ment Systems’.”;

3 (C) by striking paragraphs (3) and (4) and
4 inserting the following:

5 “(3) ENERGY AND WATER EVALUATIONS AND
6 COMMISSIONING.—

7 “(A) EVALUATIONS.—Except as provided
8 in subparagraph (B), effective beginning on the
9 date that is 180 days after the date of enact-
10 ment of the All-of-the-Above Federal Building
11 Energy Conservation Act of 2015, and annually
12 thereafter, each energy manager shall complete,
13 for each calendar year, a comprehensive energy
14 and water evaluation and recommissioning or
15 retrocommissioning for approximately 25 per-
16 cent of the facilities of each agency that meet
17 the criteria under paragraph (2)(B) in a man-
18 ner that ensures that an evaluation of each fa-
19 cility is completed at least once every 4 years.

20 “(B) EXCEPTIONS.—An evaluation and re-
21 commissioning shall not be required under sub-
22 paragraph (A) with respect to a facility that—

23 “(i) has had a comprehensive energy
24 and water evaluation during the 8-year pe-
25 riod preceding the date of the evaluation;

1 “(ii)(I) has been commissioned, re-
 2 commissioned, or retrocommissioned dur-
 3 ing the 10-year period preceding the date
 4 of the evaluation; or

5 “(II) is under ongoing commissioning;

6 “(iii) has not had a major change in
 7 function or use since the previous evalua-
 8 tion and commissioning;

9 “(iv) has been benchmarked with pub-
 10 lic disclosure under paragraph (8) within
 11 the year preceding the evaluation; and

12 “(v)(I) based on the benchmarking,
 13 has achieved at a facility level the most re-
 14 cent cumulative energy savings target
 15 under subsection (a) compared to the ear-
 16 lier of—

17 “(aa) the date of the most recent
 18 evaluation; or

19 “(bb) the date—

20 “(AA) of the most recent
 21 commissioning, recommissioning,
 22 or retrocommissioning; or

23 “(BB) on which ongoing
 24 commissioning began; or

1 “(II) has a long-term contract in
2 place guaranteeing energy savings at least
3 as great as the energy savings target under
4 subclause (I).

5 “(4) IMPLEMENTATION OF IDENTIFIED ENERGY
6 AND WATER EFFICIENCY MEASURES.—

7 “(A) IN GENERAL.—Not later than 2 years
8 after the date of completion of each evaluation
9 under paragraph (3), each energy manager
10 may—

11 “(i) implement any energy- or water-
12 saving measure that the Federal agency
13 identified in the evaluation conducted
14 under paragraph (3) that is life-cycle cost
15 effective; and

16 “(ii) bundle individual measures of
17 varying paybacks together into combined
18 projects.

19 “(B) MEASURES NOT IMPLEMENTED.—
20 The energy manager shall, as part of the cer-
21 tification system under paragraph (7), explain
22 the reasons why any life-cycle cost effective
23 measures were not implemented under subpara-
24 graph (A) using guidelines developed by the
25 Secretary.”; and

(D) in paragraph (7)(C), by adding at the end the following:

“(iii) SUMMARY REPORT.—The Secretary shall make available a report that summarizes the information tracked under subparagraph (B)(i) by each agency and, as applicable, by each type of measure.”.

SEC. 3. FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS; CERTIFICATION SYSTEM AND LEVEL FOR GREEN BUILDINGS.

(a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended—

(1) in paragraph (6), by striking “to be constructed” and inserting “constructed or altered”; and

(2) by adding at the end the following:

“(17) MAJOR RENOVATION.—The term ‘major renovation’ means a modification of building energy systems sufficiently extensive that the whole building can meet energy standards for new buildings, based on criteria to be established by the Secretary through notice and comment rulemaking.”.

1 (b) FEDERAL BUILDING EFFICIENCY STANDARDS.—
 2 Section 305 of the Energy Conservation and Production
 3 Act (42 U.S.C. 6834) is amended—

4 (1) in subsection (a)(3)—

5 (A) by striking “(3)(A) Not later than”
 6 and all that follows through subparagraph (B)
 7 and inserting the following:

8 “(3) REVISED FEDERAL BUILDING ENERGY EF-
 9 FICIENCY PERFORMANCE STANDARDS; CERTIFI-
 10 CATION FOR GREEN BUILDINGS.—

11 “(A) REVISED FEDERAL BUILDING EN-
 12 ERGY EFFICIENCY PERFORMANCE STAND-
 13 ARDS.—

14 “(i) IN GENERAL.—Not later than 1
 15 year after the date of enactment of the All-
 16 of-the-Above Federal Building Energy
 17 Conservation Act of 2015, the Secretary
 18 shall establish, by rule, revised Federal
 19 building energy efficiency performance
 20 standards that require that—

21 “(I) new Federal buildings and
 22 alterations and additions to existing
 23 Federal buildings—

24 “(aa) meet or exceed the
 25 most recent revision of the Inter-

1 national Energy Conservation
2 Code (in the case of residential
3 buildings) or ASHRAE Standard
4 90.1 (in the case of commercial
5 buildings) as of the date of en-
6 actment of the All-of-the-Above
7 Federal Building Energy Con-
8 servation Act of 2015; and

9 “(bb) meet or exceed the en-
10 ergy provisions of State and local
11 building codes applicable to the
12 building, if the codes are more
13 stringent than the International
14 Energy Conservation Code or
15 ASHRAE Standard 90.1, as ap-
16 plicable;

17 “(II) unless demonstrated not to
18 be life-cycle cost effective for new
19 Federal buildings and Federal build-
20 ings with major renovations—

21 “(aa) the buildings be de-
22 signed to achieve energy con-
23 sumption levels that are at least
24 30 percent below the levels estab-
25 lished in the version of the

1 ASHRAE Standard or the Inter-
2 national Energy Conservation
3 Code, as appropriate, that is ap-
4 plied under subclause (I)(aa), in-
5 cluding updates under subpara-
6 graph (B); and

7 “(bb) sustainable design
8 principles are applied to the loca-
9 tion, siting, design, and construc-
10 tion of all new Federal buildings
11 and replacement Federal build-
12 ings;

13 “(III) if water is used to achieve
14 energy efficiency, water conservation
15 technologies shall be applied to the ex-
16 tent that the technologies are life-
17 cycle cost effective; and

18 “(IV) if life-cycle cost effective,
19 as compared to other reasonably avail-
20 able technologies, not less than 30
21 percent of the hot water demand for
22 each new Federal building or Federal
23 building undergoing a major renova-
24 tion be met through the installation
25 and use of solar hot water heaters.

1 “(ii) LIMITATION.—Clause (i)(I) shall
 2 not apply to unaltered portions of existing
 3 Federal buildings and systems that have
 4 been added to or altered.

5 “(B) UPDATES.—Not later than 1 year
 6 after the date of approval of each subsequent
 7 revision of the ASHRAE Standard or the Inter-
 8 national Energy Conservation Code, as appro-
 9 priate, the Secretary shall determine whether
 10 the revised standards established under sub-
 11 paragraph (A) should be updated to reflect the
 12 revisions, based on the energy savings and life-
 13 cycle cost-effectiveness of the revisions.”;

14 (B) in subparagraph (C), by striking “(C)
 15 In the budget request” and inserting the fol-
 16 lowing:

17 “(C) BUDGET REQUEST.—In the budget
 18 request”; and

19 (C) by striking subparagraph (D) and in-
 20 serting the following:

21 “(D) CERTIFICATION FOR GREEN BUILD-
 22 INGS.—

23 “(i) SUSTAINABLE DESIGN PRIN-
 24 CIPLES.—Sustainable design principles
 25 shall be applied to the siting, design, and

1 construction of buildings covered by this
2 subparagraph.

3 “(ii) SELECTION OF CERTIFICATION
4 SYSTEMS.—The Secretary, after reviewing
5 the findings of the Federal Director under
6 section 436(h) of the Energy Independence
7 and Security Act of 2007 (42 U.S.C.
8 17092(h)), in consultation with the Admin-
9 istrator of General Services, and in con-
10 sultation with the Secretary of Defense re-
11 lating to those facilities under the custody
12 and control of the Department of Defense,
13 shall determine those certification systems
14 for green commercial and residential build-
15 ings that the Secretary determines to be
16 the most likely to encourage a comprehen-
17 sive and environmentally sound approach
18 to certification of green buildings.

19 “(iii) BASIS FOR SELECTION.—The
20 determination of the certification systems
21 under clause (ii) shall be based on ongoing
22 review of the findings of the Federal Direc-
23 tor under section 436(h) of the Energy
24 Independence and Security Act of 2007

1 (42 U.S.C. 17092(h)) and the criteria de-
2 scribed in clause (v).

3 “(iv) ADMINISTRATION.—In deter-
4 mining certification systems under this
5 subparagraph, the Secretary shall—

6 “(I) make a separate determina-
7 tion for all or part of each system;

8 “(II) confirm that the criteria
9 used to support the selection of build-
10 ing products, materials, brands, and
11 technologies—

12 “(aa) are fair and neutral
13 (meaning that the criteria are
14 based on an objective assessment
15 of relevant technical data);

16 “(bb) do not prohibit, dis-
17 favor, or discriminate against se-
18 lection based on technically inad-
19 equate information to inform
20 human or environmental risk;
21 and

22 “(cc) are expressed to prefer
23 performance measures whenever
24 performance measures may rea-

1 sonably be used in lieu of pre-
2 scriptive measures; and

3 “(III) use environmental and
4 health criteria that are based on risk
5 assessment methodology that is gen-
6 erally accepted by the applicable sci-
7 entific disciplines.

8 “(v) CONSIDERATIONS.—In deter-
9 mining the green building certification sys-
10 tems under this subparagraph, the Sec-
11 retary shall take into consideration—

12 “(I) the ability and availability of
13 assessors and auditors to independ-
14 ently verify the criteria and measure-
15 ment of metrics at the scale necessary
16 to implement this subparagraph;

17 “(II) the ability of the applicable
18 certification organization to collect
19 and reflect public comment;

20 “(III) the ability of the standard
21 to be developed and revised through a
22 consensus-based process;

23 “(IV) an evaluation of the
24 robustness of the criteria for a high-

1 performance green building, which
2 shall give credit for promoting—

3 “(aa) efficient and sustain-
4 able use of water, energy, and
5 other natural resources;

6 “(bb) use of renewable en-
7 ergy sources;

8 “(cc) improved indoor envi-
9 ronmental quality through en-
10 hanced indoor air quality, ther-
11 mal comfort, acoustics, day light-
12 ing, pollutant source control, and
13 use of low-emission materials and
14 building system controls; and

15 “(dd) such other criteria as
16 the Secretary determines to be
17 appropriate; and

18 “(V) national recognition within
19 the building industry.

20 “(vi) REVIEW.—The Secretary, in
21 consultation with the Administrator of
22 General Services and the Secretary of De-
23 fense, shall conduct an ongoing review to
24 evaluate and compare private sector green

1 building certification systems, taking into
2 account—

3 “(I) the criteria described in
4 clause (v); and

5 “(II) the identification made by
6 the Federal Director under section
7 436(h) of the Energy Independence
8 and Security Act of 2007 (42 U.S.C.
9 17092(h)).

10 “(vii) EXCLUSIONS.—

11 “(I) IN GENERAL.—Subject to
12 subclause (II), if a certification sys-
13 tem fails to meet the review require-
14 ments of clause (v), the Secretary
15 shall—

16 “(aa) identify the portions
17 of the system, whether pre-
18 requisites, credits, points, or oth-
19 erwise, that meet the review cri-
20 teria of clause (v);

21 “(bb) determine the portions
22 of the system that are suitable
23 for use; and

1 “(cc) exclude all other por-
 2 tions of the system from identi-
 3 fication and use.

4 “(II) ENTIRE SYSTEMS.—The
 5 Secretary shall exclude an entire sys-
 6 tem from use if an exclusion under
 7 subclause (I)—

8 “(aa) impedes the integrated
 9 use of the system;

10 “(bb) creates disparate re-
 11 view criteria or unequal point ac-
 12 cess for competing materials; or

13 “(cc) increases agency costs
 14 of the use.

15 “(viii) INTERNAL CERTIFICATION
 16 PROCESSES.—The Secretary may by rule
 17 allow Federal agencies to develop internal
 18 certification processes, using certified pro-
 19 fessionals, in lieu of certification by certifi-
 20 cation entities identified under clause (ii).

21 “(ix) PRIVATIZED MILITARY HOUS-
 22 ING.—With respect to privatized military
 23 housing, the Secretary of Defense, after
 24 consultation with the Secretary may,
 25 through rulemaking, develop alternative

1 certification systems and levels than the
2 systems and levels identified under clause
3 (ii) that achieve an equivalent result in
4 terms of energy savings, sustainable de-
5 sign, and green building performance.

6 “(x) WATER CONSERVATION TECH-
7 NOLOGIES.—In addition to any use of
8 water conservation technologies otherwise
9 required by this section, water conservation
10 technologies shall be applied to the extent
11 that the technologies are life-cycle cost-ef-
12 fective.

13 “(xi) EFFECTIVE DATE.—

14 “(I) DETERMINATIONS MADE
15 AFTER DECEMBER 31, 2015.—This
16 subparagraph shall apply to any de-
17 termination made by a Federal agency
18 after December 31, 2015.

19 “(II) DETERMINATIONS MADE ON
20 OR BEFORE DECEMBER 31, 2015.—
21 This subparagraph (as in effect on the
22 day before the date of enactment of
23 the All-of-the-Above Federal Building
24 Energy Conservation Act of 2015)
25 shall apply to any use of a certifi-

1 cation system for green commercial
2 and residential buildings by a Federal
3 agency on or before December 31,
4 2015.”; and

5 (2) by striking subsections (c) and (d) and in-
6 serting the following:

7 “(c) PERIODIC REVIEW.—The Secretary shall—

8 “(1) once every 5 years, review the Federal
9 building energy standards established under this sec-
10 tion; and

11 “(2) on completion of a review under paragraph
12 (1), if the Secretary determines that significant en-
13 ergy savings would result, upgrade the standards to
14 include all new energy efficiency and renewable en-
15 ergy measures that are technologically feasible and
16 economically justified.”.

○